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U.S. HIGH PRODUCTION VOLUME (HPV)
CHEMICAL CHALLENGE PROGRAM

ROBUST SUMMARY

2,4,6-Trimethylphenol (CAS RN 527-60-6)

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Prepared for:
U.S. Environmental Protection Agency
Washington, D.C., USA

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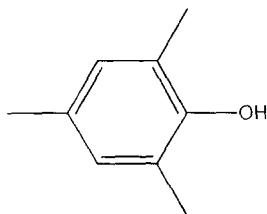
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CHEMICAL IDENTITY AND USE INFORMATION**CAS RN:**

527-60-6

CHEMICAL NAME:

2,4,6-Triethylphenol

STRUCTURE, MOLECULAR WEIGHT, FORMULA:Molecular Formula: C₉H₁₂O

Molecular Wt.: 136.19

OTHER CHEMICAL IDENTITY INFORMATION

1-Hydroxy-2,4,6-trimethylbenzene

2-Hydroxymesitylene

Benzene, 2-hydroxy-1,3,5-trimethyl-

Mesitol

Mesityl alcohol

Phenol, 2,4,6-trimethyl-

QUANTITY PRODUCED PER YEAR

Approximately 13 million pounds per year with 75% burned on the manufacturing site.

USE PATTERN

2,4,6-Triethylphenol is used by one manufacturer of insulating varnishes for the magnet wire industry. These varnishes are included in a resin to be deposited on the wire suspended in the solvent. Formulations of 33% m/p-cresol, 33% mesitol, and 34% phenol are typically used in the industry as solvents for either polyimide or polyurethane based resin to coat wire. The coating provides ease of use, insulation, and durability to the wire surface. Of the 13 MM lbs produced in 2001, about 3 MM lbs was sold to two customers, with the remaining amount burned onsite.

TEST PLAN

2,4,6-Trimethylphenol CAS RN: 527-60-6		Information	OECD Study	GLP	Other Study	Estimation Method	Acceptable	Testing Required
STUDY		Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N
PHYSICAL AND CHEMICAL DATA								
1.0	Melting Point	Y	N	N	Y	N	Y	N*
2.0	Boiling Point	Y	N	N	Y	N	Y	N*
3.0	Vapour Pressure	Y	N	N	Y	N	Y	N*
4.0	Partition Coefficient	Y	N	N	Y	N	Y	N*
5.0	Water Solubility	Y	N	N	Y	N	Y	N*
ENVIRONMENTAL FATE AND PATHWAY								
6.0	Photodegradation	Y	N	N	Y	Y	Y	N
7.0	Stability in Water	Y	Y	N	N	Y	Y	N
8.0	Transport and Distribution	Y	N	N	Y	Y	Y	N
9.0	Biodegradation	Y	N	N	Y	N	N	Y
ECOTOXICITY								
10.0	Acute Toxicity to Fish	Y	Y	Y	N	N	Y	N
11.0	Toxicity to Algae	Y	Y	Y	N	N	Y	N
12.0	Acute Toxicity to Daphnia	Y	Y	Y	N	N	Y	N
TOXICITY								
13.0	Acute Toxicity	Y	Y	Y	N	N	Y	N
14.0	Genotoxicity <i>In Vitro or In Vivo</i> (Chromosome Aberration Tests)	Y	Y	Y	N	N	Y	N
15.1	Genotoxicity <i>In Vitro</i> (Bacterial Test)	Y	N	N	Y	N	Y	N
15.2	Genotoxicity <i>In Vitro</i> (Mammalian Cells)	Y	Y	Y	N	N	Y	N
16.0	Repeated Dose Toxicity	N	N	N	N	N	N	Y**
17.0	Reproductive Toxicity	N	N	N	N	N	N	Y**
18.0	Development Toxicity / Teratogenicity	N	N	N	N	N	N	Y**

* These studies are acceptable for the High Production Volume Chemicals Challenge Program but are being repeated to ensure accuracy and completeness.

** OECD 422 study to be conducted to fulfill these endpoints.